6W6-GT

BEAM POWER AMPLIFIER

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:		
Voltage	6.3	ac or dc volts
Current	1.2	amp
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.5 max.	μμf
Input	15	μμf
Output	9	μμf

Characteristics as Beam Power Amplifier:
See AMPLIFIER—Class A_1 below:

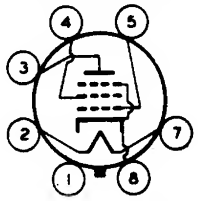
Characteristics as Triode-Connected Amplifier:
(Grid No.2 connected to plate)

Plate Voltage	225	volts
Grid-No.1 Voltage	-30	volts
Amplification Factor	6.2	
Plate Resistance	1600	ohms
Transconductance	3800	μmhos
Plate Current	22	ma
Grid-No.1 Voltage (Approx.) for plate current of 0.5 ma	-42	volts ←

Mechanical:

Mounting Position	Any
Maximum Overall Length	3-5/16"
Maximum Seated Length	2-3/4"
Maximum Diameter	1-9/32"
Bulb	T-9
Base	Intermediate-Shell Octal 6-Pin (JETEC No.B6-8) ← or Intermediate-Shell Octal 7-Pin (JETEC No.B7-7) or Short Intermediate-Shell Octal 6-Pin with External Barriers (JETEC No.B6-60) or Short Intermediate-Shell Octal 7-Pin with External Barriers (JETEC No.B7-59)
Basing Designation for BOTTOM VIEW	G-7AC

Pin 1 - No Connection
Pin 2 - Heater
Pin 3 - Plate
Pin 4 - Grid No.2
Pin 5 - Grid No.1
Pin 7 - Heater
Pin 8 - Cathode, Grid No.3



AMPLIFIER--Class A_1

Maximum Ratings, *Design-Center Values:*

PLATE VOLTAGE	300 max.	volts
GRID-No.2 (SCREEN) VOLTAGE	150 max.	volts
PLATE DISSIPATION	10 max.	watts
GRID-No.2 INPUT	1.25 max.	watts

←Indicates a change.

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PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode		200 max.	volts
Heater positive with respect to cathode		200▲max.	volts
Typical Operation and Characteristics:			
Plate Supply Voltage	110	200	volts
Grid-No.2 Voltage	110	125	volts
Grid-No.1 (Control-Grid) Voltage	-7.5	-	volts
Cathode-Bias Resistor	-	180	ohms
Peak AF Grid-No.1 Voltage	7.5	8.5	volts
Zero-Signal Plate Current	49	46	ma
Max.-Signal Plate Current	50	47	ma
Zero-Signal Grid-No.2 Current	4	2.2	ma
Max.-Signal Grid-No.2 Current	10	8.5	ma
Plate Resistance (Approx.)	13000	28000	ohms
Transconductance	8000	8000	μmhos
Load Resistance	2000	4000	ohms
Total Harmonic Distortion (Approx.)	10	10	%
Max.-Signal Power Output	2.1	3.8	watts
Maximum Circuit Values:			
Grid-No.1-Circuit Resistance:			
For fixed-bias operation		0.1 max.	megohm
For cathode-bias operation		0.5 max.	megohm

VERTICAL DEFLECTION AMPLIFIER

Triode Connected--Grid No.2 Connected to Plate

Maximum Ratings, *Design-Center Values Except As Noted:*

For operation in a 525-line, 30-frame system●

DC PLATE VOLTAGE	300 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE○	1200♦max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL-GRID) VOLTAGE	-250 max.	volts
CATHODE CURRENT:		
Peak	140 max.	ma
DC	40 max.	ma
PLATE DISSIPATION	7.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200▲max.	volts
Maximum Circuit Values:		
Grid-No.1-Circuit Resistance:		
For cathode-bias operation	2.2 max.	megohms

▲ The dc component must not exceed 100 volts.

● As described in "Standards of Good Engineering Practice for Television Broadcast Stations", Federal Communications Commission.

○ The duration of the voltage pulse must not exceed 15 per cent of one scanning cycle. In a 525-line, 30-frame system, 15 per cent of one scanning cycle is 2.5 milliseconds.

♦ under no circumstances should this absolute value be exceeded.

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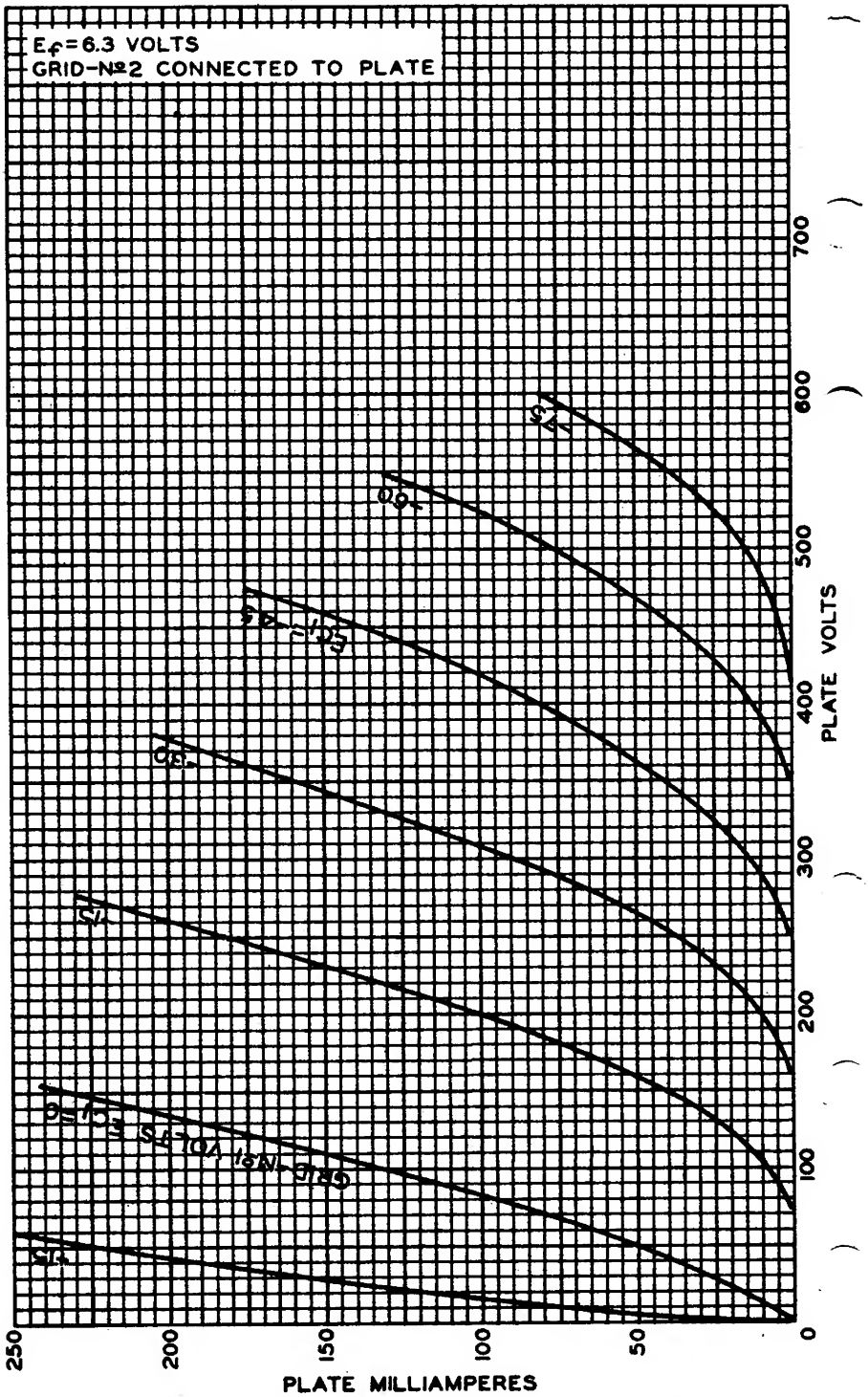
AVERAGE PLATE CHARACTERISTICS
TRIODE CONNECTION



MAR. 11, 1953

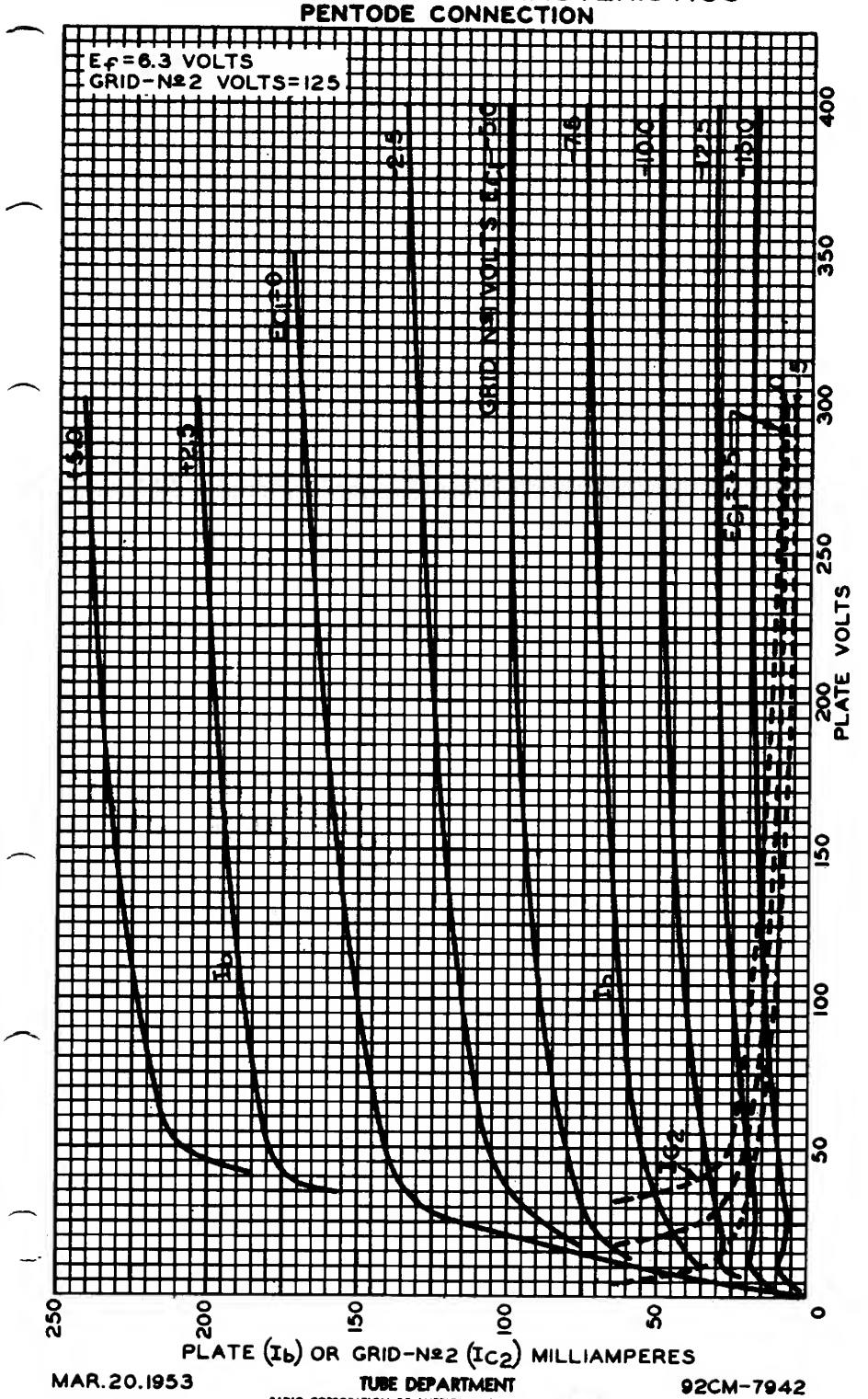
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-7943

6W6-GT

AVERAGE PLATE CHARACTERISTICS

PENTODE CONNECTION



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